CLAIMS

1. A serial configuration linear motor constituted of a plurality of movers each formed from an armature having a polyphase balancing winding, and a stator having a permanent magnet or a secondary conductor; wherein

the plurality of movers are disposed so as to face each other with a gap therebetween on the single stator, and the polyphase balancing windings in the respective movers are connected in series.

2. The serial configuration linear motor according to claim 1, wherein the plurality of movers are of a single configuration.

3. The serial configuration linear motor according to claim 1 or 2, wherein connecting terminals are provided on front ends and rear ends of the movers, and multilayered winding terminals of a rear-end terminal in a final mover are short-circuited with each other (i.e., neutral-point processing is applied).

4. The serial configuration linear motor according to claim 1 or 2, wherein, in a condition where the number of phases of each of the plurality of movers is set to three phases and the number of movers is set to an integral multiple of three, phases of the respective movers are shifted from each other by 120° or 240° in electrical angle, and connecting terminals on the front ends and rear ends of the respective movers are connected while being shifted by 120° or 240°.

5. The serial configuration linear motor according to claim

1 or 2, wherein a thermister is incorporated in each of the plurality of movers, and external terminals are provided on the front ends and rear ends of each of the movers so as to connect all the thermisters in series.